

## Year 5: Properties and Changes of Materials Knowledge Organiser

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Spencer Silver			
(1941-2019)			
American chemist who			
specialised in adhesives. He			
invented the sticky glue on			
post-it-notes.			
Ruth Benerito			
(1916-2013)			
American chemist and			
inventor, who invented wrinkle			
free cotton.			
Jaime Garcia			
(1987-)			
American scientist who			
invented a new plastic which is			
entirely recyclable			
Sir Humphry Davy (1778-			
1829)			
A British chemist and			
inventor. Discovered how to			
separate gases.			

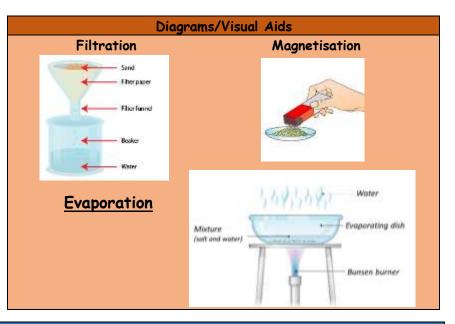
Key People/Scientists

## Misconceptions/Key Facts

<u>Misconception</u>: Confusion about hardness and strength.

<u>Fact:</u> In science, hardness refers to the ability of a material to withstand scratching and strength refers to the ability of a material to support a heavy load without breaking or tearing.

	Key Questions
What is the difference between melting and dissolving?	Melting involves only one substance while dissolving involves at least two substances. Melting takes place at a fixed temperature, but not dissolving.
What is a vacuum? A space with no particles - not a solid, liquid nor gas.	
Is sand a liquid?	Despite taking the shape of a container, sand is actually a solid because it is made up of individual tiny solids.
Is plasticine a liquid?	A solid can change its shape if a force acts on it. Plasticine changes its shape when it is moulded (a force acted on it) so it's therefore a solid.



Key Vocabulary			
conductor	A material or device that conducts or transmits heat or electricity.		
dissolve	When a solid comes incorporated or part of a liquid.		
evaporating	The process of using heat to turn liquid into gas.		
filtration	One process of separating small particles from a liquid.		
insulator	A material that does not readily allow the passage of heat or electricity.		
irreversible change	When the properties of a material change and can never be changed back such as burning,		
	cooking or rusting.		
reversible change	When the properties of a material change and can be changed back such as dissolving,		
	evaporation and melting.		
separate	To unjoin a solution, to regain the original matter. eg sieving, evaporation and filtration.		
solubility	The ability to be dissolved, especially in water.		
solution	A liquid which has a solid dissolved in it		

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